**Nuclear Energy**

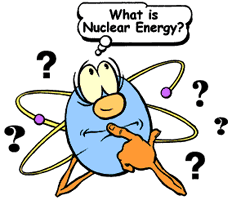
**Energy:**

Energy enables to help you get up from bed, get dressed and walk to school. Energy comes from many forms: heat, sound [](http://www.google.com.qa/imgres?imgurl=http://www.savewaveenergy.com/cms_pages_fck_files/alternative_energy.jpg&imgrefurl=http://www.savewaveenergy.com/store/alternative_energy&usg=__uE2piybR-3TFyEd-CDrPAOeEJ8Y=&h=310&w=310&sz=58&hl=ar&start=10&zoom=1&tbnid=EVOWq03pVaGesM:&tbnh=117&tbnw=117&ei=JQi_TYuvDoXzrQeJytWpBw&prev=/search?q=energy&hl=ar&safe=active&biw=1276&bih=615&gbv=2&tbm=isch&itbs=1)and light. Energy is stored in fuels by wood, coal and gas.

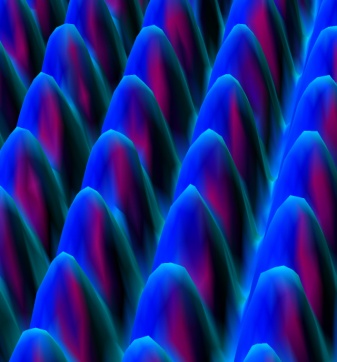
People can sense most kinds of energy. We can see the light, we can hear the sound of the energy and we can feel the heat of the energy.

**Invisible energy:**

There are some machines that use invisible energy which humans cannot sense. Such as the radio waves that gives us music and also the microwave ovens, which cook using invisible energy. Invisible energy is called radiation.

**Nuclear Energy:** 

To understand nuclear energy we need to know more about Atoms and Nucleus.

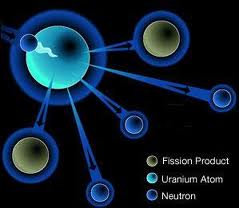
**Atoms and Nucleus:**

Everything around you is made from very tiny particles called atoms. Some parts of your body are made of atoms. They are so small that you can’t see. The centre of the Atoms is called Nucleus.

**Nuclear Energy generation:**

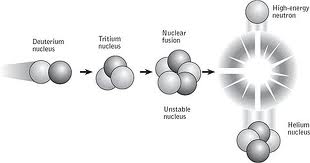
When we split the Nucleus of Atoms apart, a huge amount of energy is released and this is what we call Nuclear energy.

Most atoms don’t split apart easily but scientists can split some atoms into smaller pieces. When the Nucleus of the atom is broken up the nuclear energy is given out in the forms of the radiation. Then the Nuclear reactions are used to make electricity.

**Nuclear fission:** 

Fission means “Breaking Apart”.

**Nuclear fission** is a way scientists use for splitting atoms apart. Scientists shoot the atoms with a type of metal called uranium in a very high speed.

The Nucleus is split into two smaller nuclei. 

**Nuclear Power stations**

The first nuclear power station was built in Calder Hall in north-west of England 1956.

It was closed down in 2003 because it was too expensive to run.

There is a lot of radiation left in the area. It will take 100 years to make it a clean and safe area again.

**D.N.A Damage:**

DNA is a chemical that carries all the necessary information about our body cells. Radiation can damage our D.N.A cells. Our cells need to work properly and if our cells develop wrong we can die.

**Using Nuclear energy:**

* **Nuclear Medicine**

Radioactive parts called tracers can help checking the body for diseases for example, when we can use the rays to check the bones, the heart, the brain and the kidneys.

* **Treating Cancer**

Radiation can cause cancer however it can be used to treat cancer by killing the damaged body cells.

**Benefits of Nuclear Power**

* It produces a large amount of energy with the use of a very small amount of fuel.
* Nuclear power does not cause Global Warming.
* If nuclear fussion can work on earth, we will have enough energy t to last forever.

**Major problem with nuclear energy:**

The major problem with nuclear energy is that the danger of radiation caused by radioactive materials.

Most of the radioactive material is buried underground when a nuclear power station is closed, that is to get rid of the dangerous effect.

**Bibliography:**

Book title: Nuclear energy

Author: Saunders, Nigel and Chapman, Steven